ABSTRACT

A spatial light modulator is configured to photolithographically transfer an image onto a substrate with reduced bandwidth. The spatial light modulator includes memory elements configured to store data therein and move data therebetween. Light modulation elements are in communication with respective ones of the memory elements and are operable to be altered in response to the data stored in the respective memory elements. The memory elements can be configured as a shift register to shift the data bi-directionally between the memory elements. Each memory element can further include a feedback element, where the feedback element is a "weak" feedback element that is utilized to contribute to maintaining a voltage to minimize photocurrent effects.